TITLE: Method for fabricating magnesium diboride superconducting wire

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PATENT-FAMILY:

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APPLICATION-DATA:

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ABSTRACTED-PUB-NO: KR2003010964A

BASIC-ABSTRACT:

NOVELTY - A method for fabricating a magnesium diboride superconducting wire is provided to improve mechanical intensity by forming magnesium diboride on a surface of a wire.

DETAILED DESCRIPTION - A boron fiber(1) is formed by covering boron on a tungsten core layer. In order to fabricate magnesium diboride by using a diffusion method, the boron fiber(1) is flown in the inside of a chamber(2). Magnesium vapor(6) is injected into the inside of the chamber(2). Magnesium chips of a boat(3) are flown by using a thermal evaporation method or an e-beam evaporation method or an ion beam deposition method or a sputtering method. A deoxidation gas such as a hydrogen gas is injected into the inside of the chamber(2) in order to prevent oxidation of boron. A wire collection portion(5) and a wire supply portion(7) are installed in the inside of the chamber(2). The boat(3) is formed with a tungsten material or an alumina material.

CHOSEN-DRAWING: Dwg.1/10

TITLE-TERMS: METHOD FABRICATE MAGNESIUM SUPERCONDUCTING WIRE

DERWENT-CLASS: U14 X12